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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/745,983	12/22/2000	Jim Mao	005043.P009	1397

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EXAMINER	
SAX, STEVEN PAUL	
ART UNIT	**PAPER NUMBER**
2174	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/745,983	MAO, JIM	
	Examiner	Art Unit	
	Steven P. Sax	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This application has been examined. The amendment filed 1/17/06 has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 6, 11-13, 16, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickham (6370154) and Navaez et al (6704320).

4. Regarding claim 1, Wickham shows displaying a graphical user interface that allows a user to select from a representation of a network that is presented on a graphical user interface (abstract, Figures 6, 8, column 3 lines 5-20, column 6 lines 30-40) a first connection endpoint that is associated with a first access node of the network and a second connection endpoint that is associated with a second access node of the network (Figures 8, 9, column 3 lines 15-45, column 10 lines 25-49), executing a routing algorithm to determine a path through the network from a plurality of possible paths, the path and possible paths each connecting the first connection endpoint and the second

connection endpoint (Figures 15, 16, column 3 lines 30-55, column 8 lines 50-65, column 10 lines 5-25), provisioning the connection within the network that corresponds to the path by updating information held within a node that resides within the network and resides along the path (column 8 lines 45-65, column 10 lines 30-55, column 11 lines 10-30). Wickham does not specifically show that executing the routing algorithm comprises assigning respective weights to links and nodes within the network, changing the weights according to the availability of resources, and then determining the path with the lowest combined weight from the first to second connection endpoint, but Wickham does show efficient routing algorithms. Furthermore, Narvaez et al do show assigning respective weights to links and nodes within the network, changing the weights according to the availability of resources, and then determining the path with the lowest combined weight from the first to second connection endpoint (Figure 3, column 2 lines 45-65, column 4 lines 10-30 and 44-66, column 5 lines 5-25) for an efficient routing algorithm. It would have been obvious to a person with ordinary skill in the art to have this in Wickham, because it would be an efficient algorithm to use for routing in a network.

5. Regarding claim 2, a distributed algorithm is executed at a node (column 8 lines 1-25).

6. Regarding claim 3, the topology information is sent from a first node to a second node (column 6 lines 25-49).

7. Regarding claim 6, the routing algorithm is executed at a network control management system (column 5 lines 25-50).

8. Claims 11-13 and 16 show the same features as claims 1-3 and 6 respectively are rejected for the same reasons respectively.

9. Regarding claim 21, Wickham shows displaying a graphical user interface that allows a user to select from a representation of a network that is presented on a graphical user interface (abstract, Figures 6, 8, column 3 lines 5-20, column 6 lines 30-40) a first connection endpoint that is associated with a first access node of the network and a second connection endpoint that is associated with a second access node of the network (Figures 8, 9, column 3 lines 15-45, column 10 lines 25-49), executing a routing algorithm to determine a path through the network from a plurality of possible paths, the path and possible paths each connecting the first connection endpoint and the second connection endpoint (Figures 15, 16, column 3 lines 30-55, column 8 lines 50-65, column 10 lines 5-25), provisioning the connection within the network that corresponds to the path by updating information held within a node that resides within the network and resides along the path (column 8 lines 45-65, column 10 lines 30-55, column 11 lines 10-30). Wickham does not specifically show the packet network per se, but does show networks to route data. Furthermore, Narvaez et al show a packet network (column 2 lines 45-60) as a convenient network to route data. It would have been

obvious to a person with ordinary skill in the art to have this in Wickham, because it would be a convenient network with which to route data.

10. Regarding claim 22, Wickham does not specifically show that executing the routing algorithm comprises assigning respective weights to links and nodes within the network, changing the weights according to the availability of resources, and then determining the path with the lowest combined weight from the first to second connection endpoint, but Wickham does show efficient routing algorithms. Furthermore, Narvaez et al do show assigning respective weights to links and nodes within the network, changing the weights according to the availability of resources, and then determining the path with the lowest combined weight from the first to second connection endpoint (Figure 3, column 2 lines 45-65, column 4 lines 10-30 and 44-66, column 5 lines 5-25) for an efficient routing algorithm. It would have been obvious to a person with ordinary skill in the art to have this in Wickham, because it would be an efficient algorithm to use for routing data in a network.

11. Claims 4-5, 7-10, 14-15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickham (6370154) and Narvaez et al (6704320) and Rakoshitz et al (6578077).

12. Regarding claim 4, in addition to the aforementioned, Wickham does not go into the details of the bandwidth resource information being sent from one node to another,

but does mention efficient broadband connection in a network. Furthermore, Rakoshitz et al show sending bandwidth information for efficient broadband connection in a network (column 4 lines 57-68, Figure 3, column 10 lines 15-35, Figure 9A, column 16 lines 44-60). It would have been obvious to a person with ordinary skill in the art to include bandwidth information in the information being sent from one node to another in Wickham, because it would allow efficient broadband connection in a network.

13. Regarding claim 5, in addition to the aforementioned, Wickham does not go into the details of the Quality of Service information being sent from one node to another, but does mention routing information from one node to another for efficient monitoring of a network. Furthermore, Rakoshitz et al show sending Quality of Service information for efficient monitoring of a network (column 4 lines 40-55, Figures 9A-15, column 16 lines 44-59, column 17 lines 8-33). It would have been obvious to a person with ordinary skill in the art to include Quality of Service information in the information being sent from one node to another in Wickham, because it would allow efficient monitoring of a network.

14. Regarding claims 7-8, a graphical user interface is used to select the bandwidth and Quality of Service parameters (Rakoshitz et al see Figures 9-11 for example). The obviousness to have this in Wickham is the same for claims 7-8 respectively as it is for claims 4-5 respectively.

15. Regarding claims 9-10, the Quality of Service parameters include end to end transit delay (Rakoshitz et al column 5 lines 3-16) and jitter (Rakoshitz et al column 5 lines 17-25). The obviousness to have this in Wickham is the same as mentioned for claim 5.

16. Claims 14-15 and 17-20 show the same features as claims 4-5 and 7-10 respectively and are rejected for the same reasons as those claims respectively.

17. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven P. Sax whose telephone number is (571) 272-4072. The examiner can normally be reached on Monday thru Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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STEVEN SAX
PRIMARY EXAMINER